

Appln No. 10/672,186
Amdt date June 1, 2010
Reply to Office action of February 2, 2010

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A computer implemented method of determining the routing of interconnected regions of a routing problem, the interconnected regions being regions of [[an]] a printed circuit board electrical circuit, the method comprising:

routing all connections of the printed circuit board electrical circuit independently and in parallel, wherein each connection is routed while ignoring all other connections;

assembling at least some contextual information about a region and the routing paths which cross in said region in the form of at least one conflict object; and

resolving crossing conflicts only when said at least some contextual information has been assembled.

2. (Withdrawn) The method according to claim 1, wherein resolving of crossing conflicts is attempted only when all possible relevant contextual information has been assembled.

3. (Previously presented) The method according to claim 1, comprising the steps of:

- (a) defining, for each set of regions to be connected, routing which represents a suitable manner of connecting them, respecting only those crossing conflicts which have been explicitly registered with the set currently being considered;
- (b) examining connections across shared boundaries;
- (c) collating all such proposed routing and resolving any crossing conflicts in a symmetric manner;

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- (d) registering such crossing conflicts with the sets of regions which will be required to respect them on the next pass;
- (e) repeating steps (a) to (c) until a sufficient completion and quality of routing solution is attained; and
- (f) converting the routing into suitable geometric representations of routing paths in a way which takes all desired routing into account symmetrically and simultaneously.

4. (Previously presented) The method according to claim 3, in which the regions are polygons and the shared boundaries are edges.

5. (Withdrawn) The method according to claim 1, wherein the interconnected regions are regions of an electrical circuit.

6. (Withdrawn) A computer-implemented method of determining the routing of interconnected regions of a routing problem, the interconnected regions being regions of an electrical circuit, by considering all required connections in parallel independently and attempting to resolve conflicts only when at least some contextual information about a region and the paths which cross there has been assembled.